REMARKS/ARGUMENTS

The present Amendment is in response to the Final Office Action having a mailing date of August 22, 2006. Claims 1-2, 5-19-22-36, and 39-51 are pending in the present Application. Consequently, claims 1-2, 5-19-22-36, and 39-51 remain pending in the present Application.

This application is under Final Rejection. Applicant has presented arguments hereinbelow that Applicant believes should render the claims allowable. In the event, however, that the Examiner is not persuaded by Applicant's arguments, Applicant respectfully requests that the Examiner enter the Amendment to clarify issues upon appeal.

In the above-identified Office Action, the Examiner rejected claims 1-8, 15-19, 32-36, 39-42, and 49-54 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,421,008 (Banning) in view of NPL: "Kaleidoquery: A Visual Query Language for Object Databases" (Murray). With respect to claims 4, 21, and 38, the Examiner noted that Banning "is silent with respect to a grouping including indentation, adjacent positioning, or delineation by a symbol." Consequently, the Examiner relied upon pages 251 and 253, paragraphs 46 and 61 of Murray as teaching the positioning of the predicates adjacent to each other and delineating the group with parenthesis or an equivalent symbol.

Applicant respectfully traverses the Examiner's rejection. Independent claim 1 recites:

> 1. A query assist tool for assisting a user in creating and/or editing a query statement, the query assist tool having a user interface for building queries and a query model definition to populate a query model instance with elements of the created query statement, the user interface comprising:
> means for visually displaying a search condition of a query statement in a first display area; and
> means for visually selecting two or more predicates of the displayed search condition for grouping; and
> means responsive to selection of the two or more predicates for visually indicating the grouping in the first display area, wherein the means for indicating the grouping further comprises one or more of the group consisting of: indenting

2

the grouped predicates relative to other predicates of the search condition; positioning the grouped predicates adjacent to each other; and delineating the group with parenthesis or an equivalent symbol.

Similarly, independent claim 18 recites:

> 18. A method for assisting a user in creating and/or editing a query statement, the method utilizing a user interface for building queries and a query model definition to populate a query model instance with elements of the created query statement, the method comprising the steps of:
> visually displaying a search condition of a query statement in a first display area of the user interface;
> visually selecting two or more predicates of the displayed search condition for grouping; and
> visually indicating the grouping in the first display area in response to selection of the two or more predicates, wherein the grouping further comprises one or more of the group consisting of: indenting the grouped predicates relative to other predicates of the search condition; positioning the grouped predicates adjacent to each other; and delineating the group with parenthesis or an equivalent symbol.

Independent claim 35 recites:

> 35. An article of manufacture comprising a computer program carrier readable by a computer and embodying one or more instructions executable by the computer, the computer program providing a query assist tool for assisting a user in creating and/or editing a query statement, the query assist tool having a user interface for building queries and a query model definition to populate a query model instance with elements of the created query statement, the user interface comprising:
> program instructions for visually displaying a search condition of a query statement in a first display area of the user interface; and
> program instructions for visually selecting two or more predicates of the displayed search condition for grouping; and
> program instructions for visually indicating the grouping in the first display area in response to selection of the two or more predicates, wherein the grouping further comprises one or more of the group consisting of: indenting the grouped predicates relative to other predicates of the search condition; positioning the grouped predicates adjacent to each other; and delineating the group with parenthesis or an equivalent symbol.

Thus, using the query assist tool, method, or article of manufacture recited in claim 1, 18, or 35, the grouping of predicates is indicated in a display area that depicts the search condition. See

item 36, FIGS. 3A and 3B of the present application. Note that in addition, the text of the query may also be depicted. See item 38 in FIGS. 3A and 3B of the present application. As a result, a user may be more readily able to group, or nest, predicates in the desired manner. Specification, page 11, lines 8-16 and page 11, line 21-page 12, line 7.

Banning describes a system that employs a graphical query interface to provide a relatively inexperienced user with the ability to create, modify, and execute queries. Banning, col. 5, lines 6-11. To do so, Banning creates a one-to-one mapping of parts of the query statement and visual objects. Banning, col. 5, lines 40-49. Further, Banning specifically discusses predicates. For example, see Banning, col. 9, lines 41-65. Although Banning functions well for its intended purpose, the predicates are depicted graphically in a manner that does not include any of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol. Instead, Banning appears to depict relationships between data using windows. See, for example, Banning, FIGS. 2, 4, and 5. Moreover, the Examiner has explicitly acknowledged that Banning is silent with respect to a grouping method including indentation, adjacent positioning, or delineation by a parenthesis or equivalent symbol. Thus, Banning fails to teach visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol in the same display area that a search condition is depicted.

Murray discloses a visual query language "with the same expressive power as OQL [Object Query Language]." Murray, page 247, paragraph 1, lines 1-3. As previously discussed, Murray describes various problems with OQL. Murray, paragraph 3, 8-12. Consequently,

Murray describes a visual query language that uses a graphical filter flow to depict queries. Murray, page 247-248, paragraphs 6-8. Murray further provides examples of queries and their graphical depiction in Murray's visual query language. For example, see Figure 4 and page 249, paragraph 24 for the OQL (object query language) query and accompanying visualization in Kaleidoquery. Consequently, Applicant respectfully reiterates that the queries cited by the Examiner in pages 251 and 253, paragraphs 46 and 61, respectively, are merely the queries written in OQL. They are not visual depictions of the queries. The visual depictions corresponding to the paragraphs cited by the Examiner occur in Figures 12 and 16. Murray, page 251 paragraph 45, lines 8-9 and page 253, paragraph 60, lines 7-9. In the visual query language of Murray, the predicates are depicted through the use of different windows, or visual objects and connectors in the figures. See, for example, Figure 16 (items name, age, salary, and up arrows) and Figure 12 (arrows for employer and location = England). There is no indication in Murray that queries written in OQL can or should be visually depicted. To the contrary, Murray's recitation of the problems of OQL and indications that the visual query language can remedy these problems indicate that queries should be displayed using his visual query language rather than OQL. Stated differently, to the extent that Murray teaches the failings of textual based languages, Murray teaches away from visually indicating the grouping of predicates by a textual method such as indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and/or delineating the group with parenthesis or an equivalent symbol Consequently, Murray fails to teach or suggest indenting the grouped predicates relative to other predicates of the search condition; positioning the grouped predicates adjacent to each other; and delineating the group with parenthesis or an equivalent symbol in the same display area as the search condition is visually displayed.

Because both Banning and Murray fail to teach or suggest at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol, any combination of Banning and Murray fail to teach this feature. If the teachings of Murray were added to those of Banning, the combination might use the visual language of Murray in conjunction with the graphical user interface of Banning. Thus, the visual depictions in Murray's visual query language would be displayed on the graphical user interface of Banning. The visual depictions of items such as predicates in accordance with the teachings of Murray would be shown on the display of Banning. Consequently, the combination of Banning and Murray may represent the relationships between predicates using the system of Banning and/or the arrows and windows in the visual language of Murray. However, the combination would not indent the grouped predicates relative to other predicates of the search condition; position the grouped predicates adjacent to each other; or delineate the group with parenthesis or an equivalent symbol in the same display area as the search condition is visually displayed. Instead, the predicates would be indicated using the visual language of Murray. Consequently, Banning in view of Murray fails to teach or suggest the query assist tool, method, or article of manufacture recited in claim 1, 18, or 35. Accordingly, Applicant respectfully submits that claims 1, 18, and 35 are allowable over the cited references.

Claims 2-7 and 52 depend upon independent claim 1. Claims 15-19, 32-34, and 53 depend upon independent claim 8. Claims 36, 39-42, and 49-51 and 54 depend upon claim 35. Consequently, the arguments herein apply with full force to claims 2-7, 15-19, 32-34, 36, 39-42, 47-51 and 54. Accordingly, Applicant respectfully submits that claims 2-7, 15-19, 32-34, 36, 39-42, and 49-54 are allowable over the cited references.

In the above-identified Office action, the Examiner also rejection claims 9-14, 26-31, and 43-48 35 U.S.C. § 103 as being unpatentable over Banning in view of Murray, in further view of U.S. Patent Publication No. 2005/0004911 (Goldberg). In particular, the Examiner cited item 804 of Fig. 8 and paragraph 92 of Goldberg.

Applicant respectfully traverses the Examiner's rejection. Claims 9-14, 26-31, and 43-48 depend upon independent claims 1, 18, and 35, respectively. Consequently, the arguments herein with respect to Banning apply with full force to claims 9-14, 26-31, and 43-48. In particular, Banning fails to teach or suggest visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol in the same display area as the search condition is visually displayed.

Goldberg describes a condition builder that utilizes a graphical representation of a search query. However, in order to build a query, the cited portion of Goldberg describes building a condition using objects represented by icons or tile boxes. Goldberg, paragraph 92. However, Applicant can find no mention of how predicates differentiating predicates in groups in the recited manner. More specifically, Applicant has found no mention in Goldberg of visually indicating the grouping of predicates by indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, or delineating the group with parenthesis or an equivalent symbol.

Because both Banning and Goldberg fail to teach or suggest visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol in the same display area as the

search condition is visually displayed, the combination also fails to teach such a feature. Stated differently, if the teachings of Goldberg were added to those of Banning, the combination might use tiles or icons to represent objects. However, the combination would still visually represent groupings of predicates in the recited manner. Because Banning in view of Goldberg fail to teach or suggest visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol, Applicant respectfully submits that claims 9-14, 26-31, and 43-48 are allowable over the cited references.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

SAWYER LAW GROUP LLP

December 20, 2006
Date

/Janyce R. Mitchell/ Reg. No. 40,095
Janyce R. Mitchell
Attorney for Applicant(s)
(650) 493-4540